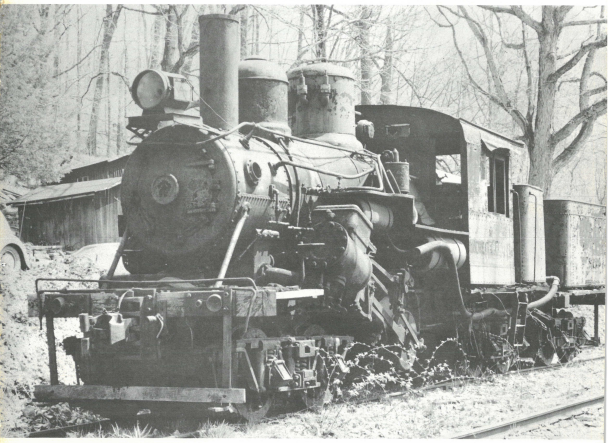
AUGUST
1968
45¢

Live Steam

THE MONTHLY MAGAZINE FOR ALL LIVE STEAMERS AND LARGE-SCALE MODEL RAILROADERS



Live Steam
magazine

AUGUST 1968 VOL. 2 NO. 8

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COVER PHOTO

Whistles In The Woods Museum's Climax (ex-Middle Fork Railroad's #6) sits at Ellamore, W. Va., waiting restoration is one of two 3-truck Climax locomotives in existance today. Photo by Robert L. Johnson.

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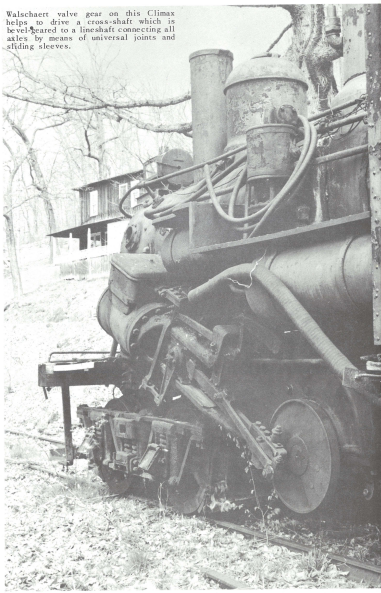
SECOND CLASS POSTAGE PAID AT CADILLAC, MICHIGAN.

an operating steam museum is

One Man's Dream

PHOTOS BY ROBERT L. JOHNSON



Walschaert valve gear on this Climax helps to drive a cross-shaft which is bevel-geared to a lineshaft connecting all axles by means of universal joints and sliding sleeves.

Robert L. Johnson has been a steam engine enthusiast as long as he can remember. At the age of 5 or 6 he received a Lionel train and a Weeden vertical Live Steam engine for Christmas and ever since that time the steam engine in its many forms from locomotive to automobile, traction and portable engine, marine engine, you name it . . . has cast the same fascination over him that it has cast over thousands. "The smell is almost tangible," Bob says, "and once wood and coal smoke and valve oil get in your blood there's no cure!"

In Bob's case the logging railroad has held a particular fascination and the geared steam locomotive a special interest so while studying music in his earlier years he decided that one day there should be a logging railroad and steam engine museum that he would be a part of. His preference favored the South where little had been done to research the history of the far-flung network of logging railroads that once followed every creek, gully and stream. Eventually Bob became a professional Country and Western string musician but marriage made the life of travelling musician seem less attractive than the alternative of starting work on the museum with his wife who shares his interest and enthusiasm.

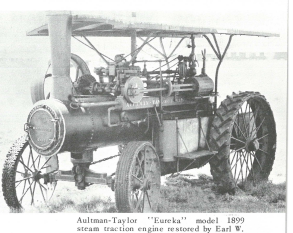
With a collection of photographs, books, whistles and leads on places where steam locomotives might be found, the Johnsons opened the *Whistles In The Woods* Steam Engine Museum in Rossville, Georgia. Today the collection includes a three-truck Climax which was built for the Middle Fork Railroad in November 1919 and remained in that company's service until diesels took over in 1957, an ever-growing assortment of steam traction and portable engines, model steam engines, engine parts and accessories and a reference library of old books, catalogs, magazines and photos.

But the story doesn't stop here. The Climax was secured in a trade for the Forest Products Chemical Company *Heisler #2* which had been purchased at an auction. The Heisler was serviceable and had been used at the *Whistles In The Woods Museum* at the beginning of a track-laying project, but it soon became obvious that any appreciable stretch of track for operation would require the resources of a Rockefeller and a search began for existing trackage that could be used for their operation.

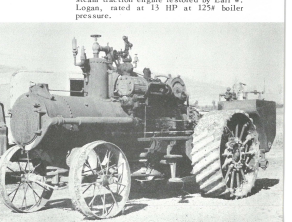
The search, it seems, has ended with the finding of the Climax. Home ground for the old veteran is a twelve-mile stretch of 85# rail on tie plates and treated ties (all in very good shape) on which service has been suspended. A field in which the tracks begin fronts on a U.S. Highway and has space for a general store and depot as well as a permanent display of railroad equipment and a steam-powered sawmill and museum building. The right-of-way extends through some of the most beautiful mountain scenery in the east and passes the remains of sawmills and coal mines in which machinery is still intact in most cases. Many of the old grades are still in use as hiking trails to tempt the rail buff (and there are many of us!) who likes to follow these paths to the past in search of a string of ties, a rotting trestle . . . or a spike to take home as a souvenir, perhaps.

Hopes are high for activity to begin in 1969 but it may be 1970 before the move can be made and all the details of preparation attended to.

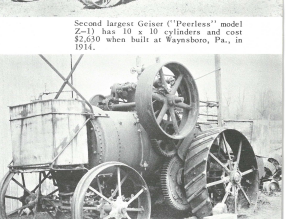
Bob's plans are for an operating museum, not a static display. A train ride across sunny meadows and skirting mountain streams will give the traveller a sense of communication with the now-vanished past of which Lucius Beebe wrote. A chance to see a steam-powered automobile, a steam tractor, a steam boat, a steam-powered shop or saw mill or power plant in operation is a treat that is seldom available these days.



Aultman-Taylor "Eureka" model 1899 steam traction engine restored by Earl W. Logan, rated at 13 HP at 125# boiler pressure.



Second largest Geiser ("Peerless" model Z–13) has 10 x 10 cylinders and cost $2,630 when built at Waynesboro, Pa., in 1914.



1898 Huber #3981 settled a few inches into the ground where it stood for 25 years. It is now being restored.

Dayton NMRA Visits Live Steamers

by ROBERT W. MAYNARD PHOTOS BY THE AUTHOR

Evert Brumley's 7½" gauge *Five Points and Southern Railroad* in Winchester, Indiana, played host to the Dayton, Ohio, chapter of the National Model Railroad Association on July 21st, 1968.

The visitors totaled about 150 enthusiasts and began arriving at noon and stayed until early evening. Picnic lunch was provided by the members themselves.

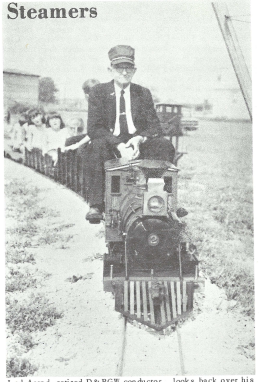
Steam motive power for the smoky end was provided by the Cinder Sniffers, Inc., with Jim Aull's 0-4-0 "Uncle Charlie" of the *Baldknob & Rapid Run Creek* and Bob Maynard's 0-4-0 vertical boilered "Susan" of the *E G B & Pacific Ry.* Joe Whitaker of New Carlisle, Ohio, was on hand with his 2-4-2 to give an able assist.

Although there was continuous running for five hours and enough cars were available, very few of the "NMRA" took advantage of the situation and rode behind the Live Steam locomotives. It seems that our Indoor Railroad brethren have no real love for the dust and cinders of Live Steam.

Hostess Agnes Brumley and Bob Maynard with a very smoky "Susan."

Lou Bandy of the Cinder Sniffers relieved engineers during the day's run.

Bob Maynard and friends behind the "Susan" on the EGB & Pacific Ry. "Chair Car."



Lad Arend, retired D&RGW conductor, looks back over his 85 years to "remember when."

Joe Whitaker and his free-lance 2-4-2 performed admirably for the event.

Jim Aull and passengers discover something interesting on the caboose end of the train.

NILS MEMBERSHIP DRIVE

"Things are going very well and enthusiasm is high. There is plenty of work in store for us in the near future and we are going to have the biggest and best club track in the world."

With those words the Northern Illinois Live Steamers launch a drive for new members as they prepare to lay 3½", 4¾" and 7½" track on their 7½ acre site near Orland Park, Illinois.

Officers for the coming year will be Matt Fairlie, President; Nick Schaub, 1st Vice President; Ron Petr, 2nd Vice President; Russ Decho, Treasurer; Bud Novy, Secretary. "Doc" Youngdahl was appointed Historian and Official Greeter.

If you are interested in joining this active group as an associate or affiliate member, contact Bud Novy, Secretary, 724 Suffolk Avenue, Westchester, Illinois 60153, phone 312 – 343-0780 for more information.

MILWAUKEE CLUB FINDS ADDED INTEREST

In two short months the list of potential members in Milwaukee has grown from four to 21. At a meeting on July 7th, twelve members met and voted to change the name of the club to *The Milwaukee Light Engineering Society* inasmuch as the membership includes two or three steamboat men, a cannon collector and a doctor whose hobby is repairing machine tools.

Dr. Jack D. McKenty, is to be secretary pro tem until the election of officers in the fall. Meetings are scheduled for the second Sunday in each month and further information can be obtained from Dr. Jack D. Mc Kenty, 4050 N. Prospect, Milwaukee, Wisconsin 53211, phone 414 – 962-7733.

JAMUL VALLEY RAILROAD CLUB DISBANDS

The Jamul Valley Railroad Club which has operated on the tracks of Harry Haas near San Diego has announced that it has dissolved the formal club arrangement under which it has been active.

The group still meets regularly on the third Sunday of each month for running on Harry's track but without the need for business meetings, officers, etc.

Any Live Steamer who desires to visit the facilities or to bring his engine to a Run Day should contact Harry F. Haas at Route 1, Box 47A, Jamul, California 92035, Phone 714 – 469-8042.

NJLS PLANS "CARL PURINTON DAY"

In recognition of 36 years of diligent work of forming and promoting the Brotherhood of Live Steamers, its founder, Carl Purinton, will be the guest of honor on September 21st at the New Jersey Live Steamers Fall Meet.

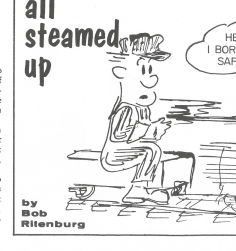
The three-day meet will designate Saturday, September 21st, as Carl Purinton Day and all Live Steamers are invited to stop by to meet and greet the Honored Guest.

FIFTH ANNUAL SPRING MEET BIGGEST EVER AT NJLS

Each year the job of reporting the NJLS meets gets to require new and more effective words to express the increase in growth and interest in this wonderful hobby of ours.

The 5th Annual Spring Meet tumed up 26 three-quarter inch engines, 14 one-inch engines and 14 1½" engines on the tracks. It is interesting to note the increase in the larger scale equipment. There were also eight stationary and traction models in operation from Walt Kleinfelders boiler.

A report has been circulating around the halls of the NJLS Club House that wedding bells will soon replace the locomotive bells on the desk of Paul Boivin, Editor of the NJLS *Whistle Blast* We'll all forgive Paul for the occasional and unexplainable words, "I do," that show up in copies of the *Whistle Blast* between now and September 2nd!



LIVE STEAMER'S VISIT CUT SHORT BY TRAGEDY

(The following portion of a letter dated July 17th, 1968 from J. V. Woonbell, 94 Foreshore Drive, Brighton Beach Durban, Natal, South Africa, will be self-explanatory. Ed.)

The reason I have not written earlier you will understand. I received a phone call when I was in Chicago from South Africa telling me that our eldest son had died tragically. It was such a shock to my wife and self we could not carry on with our holiday in U.S.A. Although we had only been there 3 weeks we returned on the first available plane to South Africa.

I want to thank the Long Island and New Jersey clubs for the very enjoyable time we had there and also the Addison Live Steamers club in Chicago and all those Model Engineers we had the good fortune to meet. I hope they enjoyed my films and we hope one day to start the Holiday where it was so sadly broken off. Thank them.

MID-SOUTH LIVE STEAMERS SPRING MEET IN ARKANSAS

The Spring Meet of the Mid-South Live Steamers was held on April 20–21 on the tracks of Austin Barr's Whitehall & Southern in Harrisburg, Arkansas. Most of the members were present and fifty visitors were registered.

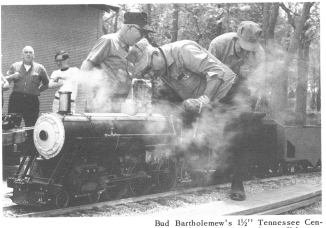
Three Live Steam locomotives were running on the 7½" track in addition to Ira Kelly's Diesel from Mission, Kansas.

Plans were made to hold another meet in the fall (September 14–15) at the home of the club secretary, Joe Ed Gaddes, R.F.D. 5, Lipscomb Drive in Franklin Tennessee 37064. For further information contact Joe at the above address or phone 615 – 794-5184.

Austin Barr's 1½" 4–6–2 gets some line-side adjustments from (l to r) Austin F. Barr, Jr., R. F. Wilson and John Garrone while in the background at left LeRoy Nessen gets instructions from Avery Land on the "ole one-two!"

Cameraman Paul Bateman of WMC-TV gets action shots for news coverage while Austin Barr with his 4–6–2 and Bud Bartholemew and his 4–6–0 doublehead over Austin's track.

Leo Myers, Secretary of the newly-formed St. Louis Live Steamers, attended with his 1½" Little Engines "C. P. Huntington."

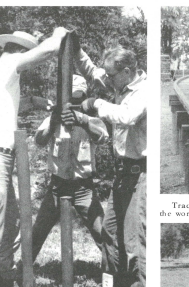


Bud Bartholemew's 1½" Tennessee Central 4–6–0 with Lynn Lowe firing up while H. M. Buettner helps Bud load up the tender.

CINDER SNIFFERS BUILD NEW TRACK

The new track site of the Cincinnati Cinder Sniffers, Inc., near Dover, Indiana, has been the scene of much club activity during the early summer months. Work sessions have been scheduled for the 2nd and 4th Saturdays of each month with from 8 to 16 turning out . . . some with wives and families who helped tremendously with cleanup work.

The piling for the North Trestle (85' long) has been completed while the South Trestle awaits some ties and the rail for its completion. The South Trestle is a long one, a total of almost 250'. The track itself is in the shape of a huge dogbone and is almost 1100' long with the minimum curve radius of 50'. The entire track will be graded and ballasted before laying rail.



Jim Aull (Track Foreman), Greg Komer (Chief Surveyor) and Bob Maynard (Laborer) driving 3½" pressure-treated cedar piling for the South Trestle.

Track Foreman Jim Aull checks over the work on the long South Trestle.

Mrs. Charles Miller, one of the many wives who helped with clean-up work.

August September

31 PENNSYLVANIA LIVE STEAMERS
1 Annual Fall Meet
2½" – 3½" – 4¾"
Frank H. Moore, Jr., Secy.
211 Walnut Avenue
Wayne, Pa. 19087

31 RED RIVER VALLEY RAILWAY
1 Annual Fall Meet
2 7½" – 5"
Paul Winslow, Secy.
304–1179 Grant Ave.
Winnipeg 9, Manitoba, Canada
204 – 284-5006

14 MID-SOUTH LIVE STEAMERS
15 Annual Fall Meet
No track available
Joe Ed Gaddes, Secretary
R.F.D. 5, Lipscomb Drive
Franklin, Tennessee 37064
Phone 615 – 794-5184

20 NEW JERSEY LIVE STEAMERS
21 Annual Fall Meet
22 3½" – 4¾" – 7½"
Ralph Green, Secy.
Phone 201 – 353-4424
845 Kilsyth Road
Elizabeth, N. J. 07208

21 MICHIGAN STEAM LOCOMOTIVE CLUB
7½" gauge
Harry Penner's Track – Warren
J. Bullock, Secretary
G–7073 Clio Road
Mt. Morris, Mich. 48058

October

11 PIONEER VALLEY LIVE STEAMERS
12 Annual Fall Meet
13 3½" – 4¾" – 7½"
Brenton W. Barnfather, Secretary
3 Fleetwood Drive
Sandy Hook, Conn. 06482

Regular Run Days

GOLDEN GATE LIVE STEAMERS
Every Sunday, weather permitting
2½" – 3½" – 4¾" – 7½"
Ron Downer, Secretary
1274 36th Avenue
San Francisco, Calif. 94122

JAMUL VALLEY RAILROAD
3rd Sunday of each month
7½" gauge
Harry F. Haas
Route 1, Box 47A
Jamul, California 92035

LOS ANGELES LIVE STEAMERS
1st Saturday & Sunday each month
3½" – 4¾" – 7½"
Harry Harper, Secy.
4 Rawhide Lane
Rolling Hills Estates,
California 90274

NEW JERSEY LIVE STEAMERS
1st & 3rd Sundays each month
3½" – 4¾" – 7½"
Ralph Green, Secretary
Phone 201 – 353-4424
845 Kilsyth Road
Elizabeth, N. J. 07208

PENNSYLVANIA LIVE STEAMERS
2nd Sunday, May thru October
2½" – 3½" – 4¾"
Frank H. Moore, Jr., Secy.
211 Walnut Avenue
Wayne, Pennsylvania 19087

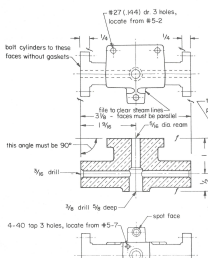
RED RIVER VALLEY RAILWAY
Every Sunday, weather permitting, May-Oct.
2½" – 3½" – 5"
Paul Winslow, Secretary
304 – 1179 Grant Avenue
Winnipeg 9, Manitoba
204 – 284-5006

RIVERSIDE LIVE STEAMERS
4th Saturday & Sunday each month
7½" gauge
Francis Mc Smith, Secretary
P. O. Box 5512
Riverside, Calif. 92507

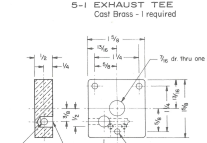
SOUTHERN CALIFORNIA LIVE STEAM CLUB
3rd Sunday each month
3½" – 4¾" – 7½"
Ki. G. Kepner, Secretary
2764 Maple
Rialto, California 92376

WAUSHAKUM LIVE STEAMERS
2nd Sunday each month 8 a.m.-4 p.m.
3½" gauge
Wendell C. Bishop, Secy.
52 Pond Street
Natick, Mass. 01760

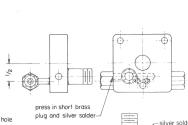
frame and exhaust fittings


#27 (.144) dr. 3 holes, locate from #5-2
1/4
1/4
bolt cylinders to these faces without gaskets
this surface must be parallel to the frame
file to clear steam lines — 3 1/8 — faces must be parallel — 1 9/16 — 9/16 dia. ream
file to fit holes in the frame
this angle must be 90°
9/16 drill
3/8 drill 5/8 deep
#27 (.144) dr. 2 holes each end, locate from drill jig #6-4
spot face
4-40 tap 3 holes, locate from #5-7

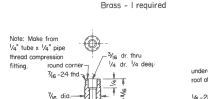
5-1 EXHAUST TEE
Cast Brass - 1 required



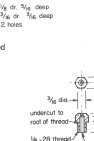
5-2 PLATE
Brass - 1 required



5-4 STEAM HEADER ASSEMBLY
1 required



5-3 STEAM CONNECTION
Brass - 1 required

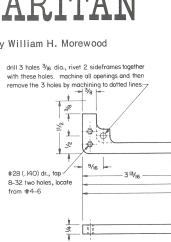


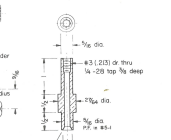
5-6 EXHAUST NOZZLE
Brass - 1 required

building the RARITAN

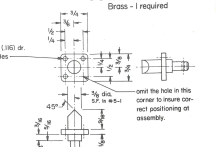
by William H. Morewood

drill 3 holes 9/16 dia., rivet 2 sideframes together with these holes. machine all openings and then remove the 3 holes by machining to dotted lines.





5-5 EXHAUST PIPE
Brass - 1 required



5-7 EXHAUST DEFLECTOR
Brass - 1 required

As we begin the Side Frames (4–1) there are just three points to be remembered:

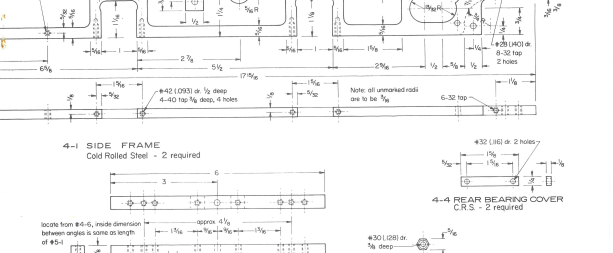
1. Take pains to be accurate.
2. The holes should be located with a milling attachment or a milling machine.
3. The axle bearings must slide freely in the slots.

The main purpose of the Exhaust Tee (5–1) is to keep the cylinders hot by conducting the waste heat in the smokebox wall down to the cylinders. It also supports the boiler and conducts the exhaust steam to the exhaust nozzle. The cylinders bolt to it metal to metal with no gasket. Lay out this casting carefully before machining to avoid taking too much off any one face. The ends must be machined parallel and the top must be square with the ends.

In construction of the Steam Header Assembly (5–4), anneal the two copper tubes before bending and then silver solder them in place. Bend and trim the tube ends to fit into the compression fittings on the cylinders. The ends should be straight for as long a distance as possible so that the nut will start straight on the fitting.

To solder on the ferrules, apply the torch to the bend in the tubing and touch the edge of the ferrule with soft solder. I have found solder necessary to keep the joint from leaking.

Brass compression fittings are available at auto parts stores.


4-40 top
4-40 top 5 holes
#28 (.140) dr. 6-32 top 2 holes
#42 (.093) dr. ½ deep 4-40 tap ⅜ deep, 4 holes
Note: all unmarked radii are to be 3/16
6-32 tap

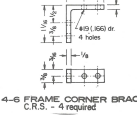
4–1 SIDE FRAME
Cold Rolled Steel – 2 required

4–2 REAR TIE BAR
Cold Rolled Steel – 1 required

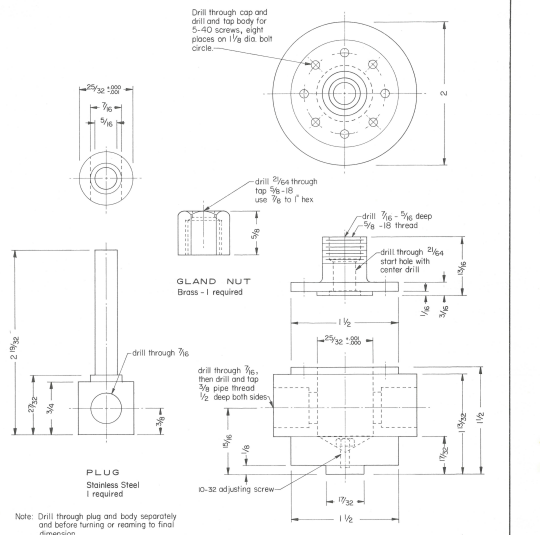
4–3 PILOT BEAM
Cold Rolled Steel – 1 required

4–4 REAR BEARING COVER
C.R.S. – 2 required

4–5 FLAG SOCKET
Brass – 2 required



4–6 FRAME CORNER BRACE
C.R.S. – 4 required



Note: Drill through plug and body separately and before turning or reaming to final dimension.

ROTARY THROTTLE ASSEMBLY

CSP/wtf

PART SIX

THE SMOKEBOX THROTTLE

by Chester G. Peterson

SO YOU WANT TO BUILD A LIVE STEAM LOCOMOTIVE

CHAPTER 9

by Joseph F. Nelson

Chester G. Peterson was born and raised in northern Iowa, the town being a division point on one railroad and an active stop on two others. Although he went on to college and has a degree in mechanical and aeronautical engineering, railroading never really wore off. For a number of years after graduation from college, aircraft design and structures work for a major aircraft company provided an invaluable foundation for the day-to-day problems arising in his hobby shop. At present, his industrial activities involve marketing research and engineering sales for a large aerospace systems company.

In 1957, Chet saw his first Live Steamer and the die was then cast. An old lathe and a drill press were acquired, and soon after that, an engine was started. Progress was very slow at first until the basic machine shop operations were mastered. The old machine tools have been replaced, and now he has a well-equipped shop in his double garage and his 1½" scale Northern has been completed (see January, 1967 issue of LIVE STEAM). Not content with frequent operation with its necessary maintenance on the engine, Chet is now well into an ambitious program of building a train of eight heavyweight Standard Pullman cars to haul passengers. Months of engineering went into the design of the cars so that they would be rugged, and above all, accurate replicas of the prototype Union Pacific rolling stock. Since Chet learned heavily on others while building his engine, he shares his practical and technical knowledge with others.

A SIMPLE THROTTLE IS THE THING

Oft times, comparatively complex designs are used when simple components give better results with greatly increased reliability. Many locomotives have a throttle in the smokebox which operates at temperatures in excess of 600°F. This high temperature introduces a problem of rough operation if, and when lubrication is necessary. Some relief from the problem is gained if the smokebox throttle can be placed ahead of the stock in the smokebox. In the process of arriving at a satisfactory smokebox throttle installation, this writer tried poppet valves, rotating disc valves, and even slide valve design. In each case, either lubrication problems or balky operation would show up sooner or later. Finally, a rotary throttle evolved. The simplest form of straight plug cock, this design resulted in extremely satisfactory operation. As illustrated, the body is Tobin bronze and the plug is machined from stainless steel. Machining this throttle is relatively simple since the tolerances are not particularly critical. Under no conditions, use free machining brass for either the body or the plug on this throttle since the lead in the brass alloy separates from the copper at the elevated smokebox temperatures. This causes destructive galling. The key to smooth operation, low wear, and long life for a rotary or sliding throttle is a last step operation before final assembly and installation. This last step is the application of a dry lubricant. The dry lubricant was applied to inside of the throttle body and the outside of the throttle plug, and, after hundreds of hours of operation, the mating surfaces show no signs of wear. The opening and closing of the throttle is velvet-smooth when the locomotive is under steam, and there is no evidence of leakage with a closed throttle. It is to be noted that steam cylinder oil is introduced downstream from the throttle to eliminate any possibility of carbon build-up in the throttle. The dry lubricant is all that is needed, any other lubrication is unnecessary for a satisfactory smokebox throttle installation.

IMPINGEMENT TYPE LUBRICATIVE PLATINGS

BY JOSEPH F. NELSON

Many Live Steamers are looking for a lubricant that will stand up on rotary throttles located in the high temperature smokebox, and at other locations that are subject to excessive wear. The answer to this problem is dry lubrication. A new dry lubricant has recently been developed which was first used on racing motorcycles, then applied with success to the aircraft and other industries. For a comparison of its effectiveness, a stock Suzuki 120 motorcycle after tuning, developed 7.3 HP at 7360 RPM. After treatment with the dry lubricant, the same motorcycle developed 8.3 HP at the same RPM.

This modern dry lubricant works well with oil and is an improvement over the original dry lubricant. Rather than being a coating, the graphite or molydisulfide is impinged into the surface at high velocity and becomes, in effect, part of the parent metal. Unlike the earlier dry lubricants, this modern Microseal 100–1 (graphite) or Microseal 200–1 (moly disulfide) has a surface build-up of less than 0.0001". The depth of penetration is approximately the same as the build-up (0.0001"). White it is not intended as an anti-corrosive, it is not affected by fuels, oils, distilled water, and many other liquids. It will stand temperatures of from −400°F. to +2000°F. It is ideally suited to sliding or rotary throttles, cylinders, slide valves, links and link blocks, crankpins, cross heads and cross head guides. As an economy measure a whole group of parts can be treated at one time much more economically than single parts. All metals, many plastics and rubber are successfully treated. Direct inquiries to: Microseal Corp. 875 Maude Ave. Mountain View, California or Microseal Corp. 16322 S. Figueroa St., Gardena, California.

NOTICE CORRECT MAILING ADDRESS FOR LIVE STEAM

Please notice that the correct mailing address for LIVE STEAM is still Post Office Box 635, Cadillac, Michigan 49601.

The new Second Class mailing permit requires that the address of the office of publication be listed along with the phone number and recently a good portion of our mail has been addressed to the street address shown.

Since this is a rural address we made arrangements for the post office box so that mail would not lay in a box along the road in the event we are out of town for any length of time.

Mail addressed to our street address can result in delay since it is sorted as addressed and then resorted as the rural carrier makes the correct mailing address on the envelope.

WINNERS ANNOUNCED IN SIERRA SWISS PHOTO CONTEST

After long deliberation on the entries to the Sierra Swiss Photo Contest announced in the March issue of LIVE STEAM, Bob Leonard (of Sierra Swiss) and his family have decided on the winners:

Gene Hackley of Arcadia, California, receives the First Prize of $100 worth of selected Minibolts.

Bernard Farmen of Long Beach, California is the Second Prize winner and will receive $50 worth of selected Minibolts.

Miles A. Snyder of Western Springs, Illinois, will get the Third Prize award of $25 worth of Minibolts.

Honorable Mentions were awarded to:

Everett Clem
Shrewsbury, Mass.

C. I. Metzger
Altoona, Pa.

Richard Garich
North Riverside, Ill.

Leo Myers,
Clayton, Mo.

Bob Leonard and his family who served as judges and his firm which sponsored the contest are to be commended for their promotion of the Live Steam Hobby in their advertising

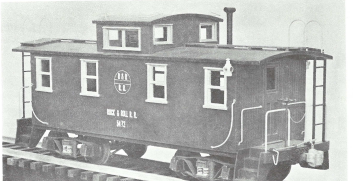
What's In The Scrap Box?

by Fred E. Wise

Magnetic and Acid Tests for White Metals

Magnetic	Reaction to Nitric Acid 50%	Color	Iron Nail Test For Copper Content	Copper Deposit When Drop Of H_2O Is Added To	Probable Metal
Yes	Slowly	Pale Green	No Copper Plates Out	Not Required	Nickel
Slightly	Reacts	Green	Copper Plates Out	Not Required	Monel
No	Reacts	Green	Copper Plates Out	Not Required	Nickel-Silver or German Silver Approx. 40% Cu 60% Ni
Yes	Reacts	Brown to Black	Not Required	Not Required	Iron or Steel
No	Reacts	Brown to Black	Not Required	Not Required	Ni-Resist
Yes	None	Colorless	Not Required	Not Required	Stainless - Straight Chrome Type "A" or "B"
No	None	Colorless	Not Required	Copper Chl. (10 gr.) HCL Acid (100 cc)	Stainless - 18–8 Type "C"
No	None	Colorless	Not Required	No Copper Deposit	Inconel

NELSON GRAY INTRODUCES NEW CABOOSE KIT



After long months of preparation the castings for Nelson Gray's 1" scale caboose are now ready.

Made of sand cast aluminum, the finished product will enhance any freight train you could imagine.

The car is 21" long, 9" wide and 13½" high to the top of the cupola which can be positioned to suit the builder as the two photos show.

The kit offered includes castings for the body only and does not include hardware. Any 1" scale trucks and couplers can be used. The body castings weigh 34 pounds and the finished caboose with trucks and couplers weighs about 45 pounds.

For more information about this car...as well as 1" trucks and couplers, write to Nelson W. Gray, 900 East Brighton Avenue, Jamesville, N. Y. 13078.

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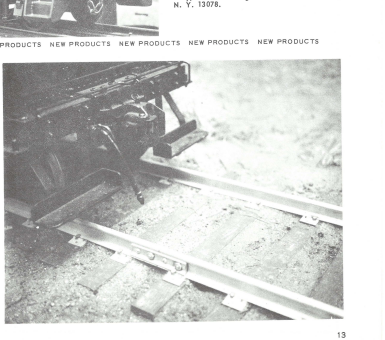
Tie plates have the prototype taper of 1 in 50 which tilts the rail slightly toward the track center for better rail stability, especially on curves. It also tends to match the rail head more accurately with the taper on wheel treads.

Write to Paul B. Culp, 617 Fanshawe St., Philadelphia, Pa. 19111 for further information.



mail stop

BRITISH FIREDOORS

I would like to comment on some remarks in the article by your contributor, Mr. Joseph F. Nelson, on page 16 of your May issue.

Mr. Nelson says that American Live Steam enthusiasts complain that the firedoors of British Live Steam model locomotives are to scale. In fact, all the firedoors shown on LBSC's drawings are considerably over scale, so as to make firing easier, while in my own designs of locomotives, the firedoors are generally larger than LBSC's. In fact, in my most recent designs, I would say that the firedoors are at least 50% larger than the scale size.

While I agree with Mr. Nelson's comments on flue type superheaters, I certainly cannot agree that smokebox superheaters are of any value. Over here we are now using to an increasing extent the firebox type of superheater, where the superheater elements are carried right across the top of the firebox to a heavy "return bend" and then forward again down the same flue. As the return bend is tucked away in the rear upper corner of the firebox, just above the firedoor, it does not become dangerously over-heated, nor is it in the way of firing.

I would also like to comment on the stay tube type throttle shown by Mr. Nelson on page 15. As the dry pipe, the steam collecting pipe and the stay tube to the backhead are all shown as silver soldered to the throttle, it must be impossible to assemble it inside the boiler!

The body of the throttle could easily be made much more compact so that it could be lowered into the boiler via the dome, but even then the builder would still have to screw in both the dry pipe and the stay tube.

It seems to me that the only way two of these joints could be silver soldered to the body of the throttle would be where a large hole or bush was provided in either the backhead or the smokebox tubeplate. Even then the steam connecting pipe would still have to be screwed into the body through the dame.

MARTIN EVANS, Editor
MODEL ENGINEER
13/35 BRIDGE STREET
HEMEL HEMPSTEAD, HERTS
ENGLAND

BATTLE OF THE BOILERS

Recent articles in LIVE STEAM plus attendant correspondence seem to indicate a new "battle of the boilers" is with us. Older readers will recall the late LBSC often referred to the above so-called "battle," and it referred, of course, to the difference of opinion between the late Henry Greenly and "Curly" as to the best type of boiler for miniature locomotives. Greenly preferred a water tube externally fired boiler while Curly held out for the conventional locomotive type internally fired. Well, Curly won this battle hands down.

But this new battle seems to be shaping up as one for or against inspected and coded boilers. The feeling hereabouts seems to be largely one of reaction against coded boilers. In other words, it is felt that you should build a boiler to your own design using recognized materials and methods. You should test it yourself and, most important, you fire it yourself and use it under pressure for your own enjoyment. No one else is permitted to fire the boiler unless thoroughly experienced in such procedures and *known to be so by the builder.*

With the fine safety record enjoyed by the hobby over the years, it seems ridiculous to, all of a sudden, have to conform to specifications laid down for large boilers. Am I underplaying the danger of these small pressure vessels? I think not. Anyone who has brazed a copper boiler is certainly aware of how fast copper can carry away heat and I hold that a coal fire in the ordinary miniature copper fire box can hardly be expected to produce a red-hot crown sheet. But if it could, the condition could exist only with virtually no water in the boiler and with little water there is little energy present for a dangerous explosion. Assuming the crown sheet does collapse or split, this energy will be directed downward through the firebox. In an extreme case, the boiler might lift off the chassis and catapult forward away from the driver. I just can't believe that a sudden release of pressure above the water line is going to cause the outside plates of the boiler to suddenly tear apart as has been inferred in a previous article.

Been to your cleaner lately? Ask him how much maintenance he performs on his steam-press boiler. These boilers are steel and in use daily. The water is used for boiler feed and the safety valves and gauge glass are probably checked only when the inspector comes around. In other words, the poor boiler has to look after itself. Contrast this with the average miniature loco boiler. Here we use only distilled water, have several means of feeding this water, safety valves are constantly in use, the gauge glass and mud ring are blown down every few hours, tubes cleaned or at least swept just as often and the whole unit just plain fussed over and watched like a hawk while in steam. Now if this isn't safe boiler operation, then what is? Perhaps there are those who find a boiler job "just a piece of cake." Most of us find it an interesting but time-consuming job and we're not going to throw away weeks of work, dollars of silver solder and copper and the sweat and travail of assembly to risk ruining the job through carelessness in operation. At least I'm not.

To those who do feel coded boilers a must, I say let them pay the exhorbitant cost of same and carry all the spectators they wish. For the rest of us, let's build with first grade materials, methods and design and personally stand in back of the integrity of our own work. This is a hobby of enjoyment and good fellowship – let it not be spoiled by regulatory restrictions.

WILLIAM I. TREADWAY
352 BREWSTER ROAD
BRISTOL, CONNECTICUT 06010

...from the cupola

We've really been raked over the coals by some of our readers about the report we made on the situation at Harpur Locomotive Works in the May issue. These people all have very legitimate gripes in that they have partially completed or inoperative Harpur equipment which represents a sizeable investment and no one seems to be willing or able to throw any light on the future prospects for satisfactory completion.

The item in the May issue, however, was not intended in any way to be in defense of Bob Harpur, but rather in defense of our American way of assuming a man innocent until proven guilty. When reports start circulating which mention a figure of $1,400 (as we originally received it) and on the second round it has "grown" to $140,000 followed in quick succession by several versions incorporating a figure of $240,000 it seems that further discussion of the matter serves no useful purpose.

As we reported in May, we contacted Bob Harpur by phone and felt sure that he would make use of our offer to present factual information or progress reports on the matter in this publication. We are disappointed that he has not chosen to do so.

We feel an obligation here to make sure that the advertising we present is backed up by satisfaction from the supplier or assistance from us to obtain satisfaction. We might add that without exception the advertising we have carried during the past six months in LIVE STEAM has not resulted in a single complaint. This speaks well for those firms and individuals who help the rest of us in the pursuit of our hobby and serves as a guide line for future inquiries by the "membership".

— W. C. F. —

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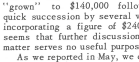

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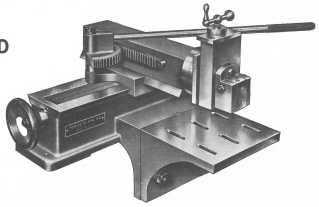

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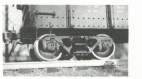

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